

REMARKS

Applicant respectfully requests reconsideration and allowance in view of the foregoing amendments and following remarks. In the Office Action, mailed October 24, 2003, the Examiner rejected claims 1-14. By this amendment, claim 9 has been canceled, claims 1-8 and 10-14 have been amended and new claim 33 has been added. Following entry of these amendments, claims 1-8, 10-14 and 33 will be pending in the application.

Drawing Objections

In the Office Action, the Examiner objected to the drawings under 37 C.F.R. §1.84(p)(5) for allegedly failing to include reference sign(s) mentioned in the written description. Specifically, the Examiner noted that reference signs for algorithm 1, 2 & 3 were not included in the drawings.

Applicant has amended Figure 2 (a replacement sheet is attached to this response as the Appendix) to include parenthetical references to algorithms 1, 2 & 3. Therefore, for at least this reason, Applicant respectfully requests entry of amended Figure 2 and withdrawal of the drawing objection.

Claim Rejections under 35 U.S.C. § 112 (First & Second Paragraphs)

In the Office Action, the Examiner rejected claim 3 under 35 U.S.C. §112, first & second paragraphs, for allegedly failing to comply with the enablement requirement and for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. Applicant respectfully traverses the rejections of claim 3.

A rejection under 35 U.S.C. §112, first or second paragraph, is not appropriate when "those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986). In the Office Action, the Examiner asserted that claim 3 was indefinite and non-enabled because the claimed element FoP was "nowhere defined or described in the specification." (see, Office Action, p. 3, para. 6 & 8).

Applicant respectfully submits that the claim 3 element FoP is fully described and supported in the specification as filed such that those skilled in the art would understand its meaning within the

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context of Applicant's invention. For example, at page 18, lines 15-18, Applicant states, "the CPU 2 can receive high frequency serial data from one or more communication cores/systems such as VoIP (voice over IP), FoP (fax over IP), ..., and the like" (emphasis added). At the time of Applicant's invention, IP was commonly understood by those skilled in the art to mean Internet Protocol. Clearly, this fully supports and defines the meaning of Applicant's claim 3 usage of FoP to those skilled in the art. Further, notwithstanding Applicant's express definition of FoP, those skilled in the art would readily understand that FoP means fax over IP, especially given the subject matter, in general, of Applicant's invention and also given that Applicant's claim 2 refers to the ubiquitous acronym VoIP, which is commonly known to mean voice over IP.

For at least the foregoing reasons, Applicant respectfully submits that the §112 rejections of claim 3 should be withdrawn.

Claim Rejections under 35 U.S.C. §102(b)

In the Office Action, the Examiner rejected claims 1, 2 and 5-8 under 35 U.S.C. §102(b) as allegedly being anticipated by Applicant's admitted (as defined by the Examiner) prior art (hereinafter, "AAPA"). Applicant respectfully traverses the rejections of claims 1, 2 and 5-8.

Applicant has amended claim 1 to further clarify the invention. Applicant has also incorporated the limitations of dependent claim 9 into independent claim 1. As noted below, in the Office Action, the Examiner rejected dependent claim 9 under section 103(a) in view of AAPA combined with Van Hook. Thus, Applicant will distinguish both AAPA and Van Hood in this section of the Remarks, and discuss additional and specific section 103 inapplicability concerns below.

An anticipation rejection under section 102(b) is proper when a patent applicant has claimed an invention that "was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country more than one year prior to the date of the application for patent in the United States." 35 U.S.C. §102(b). A claim is anticipated "only if each and every element *as set forth in the claim* is found, either expressly or inherently described, in a single prior art reference." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1570 (Fed. Cir. 1988) (emphasis in original), *cert. denied*, 488 U.S. 892 (1988).

For at least the reasons stated below, Applicant asserts that AAPA fails to expressly or inherently describe each and every element of the invention claimed by Applicant and, therefore, that Applicant's rejected claims 1, 2 and 5-6 are patentably distinct from AAPA.

Independent Claim 1

Applicant's independent claim 1, as amended, recites a system for providing parallel processing of data to a plurality of digital signal processors (DSPs) that includes:

means for transmitting communication data to a load management system from at least one CPU, wherein the load management system includes:

a plurality of direct memory access (DMA) devices, each DMA device having one or more internal registers, one or more FIFOs, and a state machine associated with the one or more FIFOs;

a memory interface for interfacing the plurality of DMA devices with an external memory device;

a plurality of status and control registers coupled to the plurality of DMA devices;

at least one CPU interface for interfacing the at least one CPU with the plurality of status and control registers; and

a plurality of DSP interfaces for interfacing the plurality of DSPs with the plurality of DMA devices;

means for selecting two or more DSPs from the plurality of DSPs for processing the communication data;

means for processing the communication data using the selected two or more DSPs; and

means for transmitting the processed communication data back to the at least one CPU and to a communication device.

First, Applicant asserts that the Examiner has failed to provide valid §102(b) references that anticipate Applicant's amended claim 1. Presumably, the Examiner alleges that Applicant's admitted prior art was either described in a printed publication or in public use in this country more than one year prior to the date of Applicant's application. However, neither of these possible allegations is valid. Applicant's specification certainly cannot be a "printed publication" more than a year prior to Applicant's filing date. Further, Applicant makes no admission as to the timing (i.e., more than one year prior) of any particular conventional or typical system discussed in Applicant's background section. Thus, Applicant's invention cannot be anticipated by AAPA under §102(b).

Notwithstanding the above, AAPA and Van Hook neither disclose nor suggest a system for providing parallel processing of data to a plurality of DSPs as recited, having a load management system that includes a plurality of DMA devices, each having one or more registers, one or more FIFOs and a state machine associate with the one or more FIFOs, and a means for selecting two or more DSPs from a plurality of DSPs for processing communication data as required by amended independent claim 1.

In asserting anticipation of the invention as claimed in independent claim 1, the Examiner refers to AAPA, to Figure 6a with col. 17, ll. 43-54 of Van Hook and to Figure 40 with col. 62, ll. 34-51 of Van Hook. AAPA and Van Hook do not disclose or suggest the subject matter of amended independent claim 1 for at least the following reasons.

First, AAPA and Van Hook nowhere disclose a load management system that includes a plurality of DMA devices acting in parallel, where each DMA device has internal registers, FIFOs, and a state machine associated with the FIFOs. Rather, AAPA and Van Hook disclose means for controlling audio and video of a game system, where the plurality of DMA interfaces fail to include a FIFO with a state machine that is associated with the FIFO. In contrast, each of Applicant's claimed plurality of DMA devices includes registers and a FIFO and a state machine associated with the FIFO. A comparison between Applicant's Figure 3B and Van Hook's Figure 6a illustrates this distinction.

Second, AAPA and Van Hook nowhere disclose means for selecting two or more DSPs from a plurality of DSPs for processing the communication data as required by amended independent claim 1. Rather, AAPA and Van Hook disclose a means for managing the use of the shared co-processor busses by only one co-processor sub-block at a time (see, Van Hook, col. 17, ll. 30-35). Again with reference to Applicant's Figure 3B, Applicant's claimed invention does not incorporate this shared bus structure between the load management system 100 and the DSP array 12. Thus, parallel processing is facilitated.

Third, AAPA and Van Hook nowhere disclose the parallel processing of communications data using two or more DSPs and the load management system as required by amended independent claim 1. Applicant's invention, for example as illustrated in Figure 3B, includes the means for utilizing two or more DSPs (via the load management system) working in parallel to process the

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communications data.

In summary, for at least the reasons presented above, AAPA and Van Hook neither disclose nor suggest a system for providing parallel processing of data to a plurality of DSPs as recited, having a load management system that includes a plurality of DMA devices, each having one or more registers, one or more FIFOs and a state machine associate with the one or more FIFOs, and a means for selecting two or more DSPs from a plurality of DSPs for processing communication data as required by amended independent claim 1. Accordingly, Applicant respectfully submits that amended independent claim 1 is allowable over the art of record.

Dependent Claims 2 and 5-8

Amended dependent claims 2 and 5-8 all ultimately depend from amended independent claim 1. The allowability of dependent claims 2 and 5-8 thus follows from the allowability of amended independent claim 1; as such, dependent claims 2 and 5-8 are allowable over the art of record.

Claim Rejections under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claims 3 and 4 under 35 U.S.C. §103(a) as allegedly being unpatentable over AAPA in view of U.S. Patent No. 6,278,707 to MacMillan et al. (hereinafter "MacMillan"). Additionally, the Examiner rejected claims 9 and 11 under 35 U.S.C. §103(a) as allegedly being unpatentable over AAPA in view of U.S. Patent No. 6,342,892 to Van Hook et al. (herein "Van Hook"). Further, the Examiner rejected claim 10 under 35 U.S.C. §103(a) as allegedly being unpatentable over AAPA and Van Hook in view of U.S. Patent Application Publication No. 2003/00464459 to Honary et al. (hereinafter "Honary"). Still further, the Examiner rejected claims 12 and 14 under 35 U.S.C. §103(a) as allegedly being unpatentable over AAPA and Van Hook in view of U.S. Patent No. 6,044,225 to Spencer et al. (hereinafter "Spencer"). Lastly, the Examiner rejected claim 13 under 35 U.S.C. §103(a) as allegedly being unpatentable over AAPA, Van Hook and Spencer in view of U.S. Patent Application Publication No. 2002/0078319 to Chauvel et al. (hereinafter "Chauvel"). Applicant respectfully traverses the rejections of claims 3, 4 and 9-14 and notes for subsequent reference the following standards for a proper §103(a) rejection.

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A §103(a), or obviousness, rejection is proper only when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains." 35 U.S.C. §103(a). The Examiner must make out a *prima facie* case for obviousness. The mere fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness. The *en banc* Federal Circuit has held that "structural similarity between claimed and prior art subject matter, proved by combining references or otherwise, where the prior art gives reason or motivation to make the claimed compositions, creates a *prima facie* case of obviousness." *In re Dillon*, 16 U.S.P.Q. 2d 1897, 1901 (CAFC 1990). The underlying inquiries into the validity of an obviousness rejection are: "(1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness." *In re Dembiczak*, 175 F.3d 994, 998, (Fed. Cir. 1999).

Further, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Likewise, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

For at least the reasons stated below, Applicant asserts that the combination of the cited references fails to describe or suggest the subject matter as a whole of Applicant's claimed invention and, therefore, that Applicant's rejected claims 3, 4 and 9-14 are patentably distinct from the art of record.

Dependent Claims 3 and 4

Amended dependent claims 3 and 4 ultimately depend from amended independent claim 1. The allowability of dependent claims 3 and 4 thus follows from the allowability of amended independent claim 1; as such, dependent claims 3 and 4 are allowable over the art of record.

Dependent Claim 9

Dependent claim 9 has been canceled. The limitations from dependent claim 9 have been

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incorporated into amended independent claim 1. Thus the rejection of dependent claim 9 has been rendered moot.

Dependent Claims 10-14

Dependent claims 10-14 have been amended such that they all ultimately depend from amended independent claim 1. The allowability of dependent claims 10-14 thus follows from the allowability of amended independent claim 1; as such, dependent claims 10-14 are allowable over the art of record.

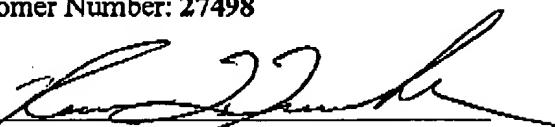
Therefore, for at least these reasons, Applicant respectfully submits that dependent claims 3, 4 and 10-14 are patentably distinct from and allowable over the art of record.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition of allowance and a Notice to that effect is earnestly solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

CHARGE STATEMENT: The Commissioner is hereby authorized to charge fees that may be required relative to this application, or credit any overpayment, to our Account 50-2213, Order No. 083452-0261856.

Respectfully submitted,
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